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ABSTRACT

Investigations into the Brazilian education system indicate the system's inadequacies in democratizing education. Instead, education is accessible to those who can afford it and not to those who most need it. Although research evidence consistently shows the positive relationship between socioeconomic characteristics and school access and performance as well as the level and equality of education, this relationship is mediated by other factors that include curriculum, methodology, availability of resources, length of period at school, and student/teacher characteristics. The paper also discusses the regional dimension of disparities which has important implications for educational planning for both political and technical reasons. Previous studies of inter- and intra-regional disparities of education in the state of Espirito Santo are also analyzed. A list of references is included.(KWL)

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Conceptual and Methodological Considerations of Educational Disparities

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CONCEPTUAL AND METHODOLOGICAL CONSIDERATIONS OF EDUCATIONAL DISPARITIES

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The problem of educational inequalities has been widely investigated and discussed in the Brazilian and the international literature. The overall growth of the educational systems has not been sufficient to democratize education and much less to make the eight year school universal. The failure of the Brazilian educational system can be evidenced in the following data:

. In 1980 only 71.6 percent of the seven year old children were enrolled at school — an indication of serious problems in access to school (Gama et al., 1984).

. In the past 40 years, the passage from grade one to grade two has been the major strangling point in the system and where social selectivity works most strongly. Thus, in the period 1942 to 1970 enrollment in second grade ranged from 38.2 to 49 percent of first grade enrollment in the previous year. In the period 1974-1977 these rates increased to the range of 50 to 58 percent only and the estimations for the following years are not better (Cunha, 1979; Conselho Federal de Educação, 1980).

. For those who succeed to stay at school beyond the first grade the probability of finishing eight grade is still low. For every 1000 children who started school in 1971 only 349 got to 4^{th} grade and 180 to 8^{th} grade. It is estimated that among the 7 million children enrolled in grade one in 1978 only 1.4 million (20%) will finish 8^{th} grade in 1985 (SEEC/MEC, 1981).

. School enrollment in the age range of 7 to 14 showed, in 1980, a deficit of 32.3 percent, that is, only 67.7 of those children were regularly enrolled. (IBGE, 1981).

. Among the population with the age of 15 and above in 1980, 27.4 percent had no schooling or less than one year and 43.07 percent had one to four years; a total of 70.5 percent with a maximum of four years of formal instruction (Ribeiro, 1985).

The above data lead to the conclusion that in Brazil, as in many other developing countries, education is perpetuating a process of reproduction of privileges instead of facilitating equality of opportunities to the citizens. Education is accessible to those who can afford it and not to those who most need it. Research evidence consistently shows the positive relationship between socio-economic characteristics and school access and performance as well as the level and quality of education (eg. Brandão et all, 1983; Cunha, 1979; Sobrinho, 1980). In general, the lower the socio-economic conditions of the region the lower the rate of access; the poorer the student, the lower his/her performance and the higher the probability of retention and dropout; the lower the family income, the lower its level of schooling.

In spite of the fact that government plans and policies assert the value of universality of elementary education of eight years as a condition for a more just distribution of wealth the data lead us to question as Mello (1981):

> The picture, as designed, brings serious doubts about the power of elementary education in the social justice policy proposed by the government. After all, it reveals itself as unequally distributed as the wealth that, supposedly, it should help to redistribute. How would it function as such if it is also unequally distributed? (p.17).

Obviously it would be quite simplist to accept the position of socio-economic determinism and assume that the problem of educational disparities can be explained solely by the socio-economic characteristics of the region and the students. Once inside the school the evidence suggests that the relationship between socio-economic factors and school progress and performance is mediated by other factors such as curriculum, methodology, availability of resources, length of period at school, student and teacher characteristics, etc. "To assume that all these aspects do not possess any autonomy from the social class origin of the student would mean to leave to the school, exclusively, the task of ideological inculcation with the purpose to legitimate a social destiny totally pre-determined" (Mello, 1981, p.22).

The Regional Dimension of Disparities

The problem of educational disparities, has been extensively documented and investigated. Generally the realization of disparities also points to inequalities and it is probably due to this reason that most investigations have concentrated their analysis in the social dimension with the purpose to show and explain why certain groups benefit more from educational opportunities and how social and class differences are legitimated and perpetuated. On the other hand the spacial or regional distribution of educational opportunities considered, till a few years ago, almost exclusively the urban- rural dimension. According to Carron and Châu (1978).

> The most likely reason for ignoring the spacial dimension is that researchers have preferred to go to the heart of the matter. For the fact is that school is not a service like the health or public transport services. It is not just a commodity supplied to the population: it is at the same time a mechanism by which positions and status in society are allocated. In this sense, the school lies at the heart of the problem of social structure and its reproduction. In analysing disparities, therefore, the question of social inequalities constitute to some extent the central problem (p.iii).

However, from both a political and an administrative viewpoint education is a social benefit to which all citizens should have access. Any measure aimed at the promotion of social justice and reduction of inequalities must, necessarily, take into consideration equal distribution of education services. In this sense more specific definition of goals and actions must take into account the spacial dimension of disparities.

With the objective "to give rise to a general discussion on the importance and significance of regional disparities in various geographic and cultural context, and on the pertinence of the objective of reducing this disparities in various economic, social and political situations" (Carron and Châu, 1981, p.11) the International Institute for Educational Planning has sponsored studies in various countries.

Carron and Châu assert that the analysis of regional disparities in education has important and useful implications for educational planning for

two reasons: one political and one technical. Politically the reduction of regional disparities is a central concern in many countries because of the role played by education on the development and maintenance of national unity. As an institution, schools are seen by the ruling class with the responsibility to integrate the youth in the national culture. For this reason there should be schools in all regions of the country. In case there is any delay in educational development the regional communities may interpret it as lack of interest from the authorities which may give rise to regional aspirations threatening to national unity.

The technical reasons are related to educational planning. For administrators and planners the problem of educational disparities is associated to the distribution of educational services and resources. As a social service education must be organized so that everybody may have equal access to it. Therefore the planners' major concern is how to organize the material and human infrastructure in such a way as to ensure equal opportunities of access and treatment, (though not identical), for all and at the same time respect and incorporate in the educational process, cultural and human characteristics of each region. From this type of perspective educational planning must take into consideration the spacial dimension if disparities are to be reduced. Obviously the authors stress that, the regional approach cannot be restricted to this narrow framework, but it must be analyzed in the context of problems of inequalities in general.

The Study of Inter and Intra-Regional Disparities of Education in Espírito Santo

Historical analysis show that in the past decades educational opportunities have been extended to a significantly larger proportion of the population. But at the same time statistics also show that many children and adults don't even enroll in first grade and among those who do enroll, a majority is being excluded from school after a few years. Furthermore, the education that is being offered to the population that stays in the system is of doubtful quality.

Such picture demands further investigation to support much needed correction.

Being concerned about the educational disparities evidenced in Brazil, inspired on the suggestions from the IIEP studies and considering the usefulness of this line of investigation for the planning of education, a group of researchers decided to implement the study of regional disparities of Education in the State of Espírito Santo. Basically their methological approach, used to organize and analyze the data by regions, would be utilized in the first stage of our study in order to map and describe educational disparities in the State.

The diagnostic models traditionally used are excessivaly global and descriptive. The regional approach enriches its content to the degree that the information is organized in such a way as to allow not only the detailed mapping of the educational situation in the regions but also to reveal disparities between and inside the regions. Thus the probability of utilization of the informations for the reduction of inequalities is maximized.

The option to focus on the State, instead of the country, was due to the following reasons:

a) A large majority of the schools in Brazil are State controlled and as such decision making is centralized in each State.

b) The territorial dimension of the country makes any global research effort very difficult.

c) The research group was committed to furnish information to aid decision making in their State of residence.

The general purposes of the investigation were:

. To map the evolution of education in the State;

. To identify inter and intra-regional disparities of education in the State of Espírito Santo;

. To assess the relationship between educational, demographic and socio-economic disparities;

. To search for explanations for the problems of quality of the educational services provided;

. To furnish information to the educational system in order to aid educational planning and decision making.

Given the wide range of research goals the study consisted of a series of inter-related investigations which, together, would give a picture of the

State of the art of education in Espírito Santo in terms of its historical evolution, in terms of disparities in access, progression and treatment and also about the quality of education offered.

The various studies can be classified in two groups. The first one worked with population data and was quantitative in nature. The second group involved studies of both a quantitative and a qualitative nature dealing with either samples intentionally selected or case studies.

The first set of studies were developed with the purpose to organize a thorough map of elementary education in the State, to identify distortions and disparities, to assess the relationship between educational e socio-economic conditions and finally to situate, historically, the evolution of education in the State. (Gama et al. 1984).

Based on previous studies, the State was divided in six regions, each one of them containing a certain number of counties.

The data was collected by county (urban and rural areas separately) and, within the county, grouped by the administrative origin of the school system (federal, state, municipal and private). Educational, socio-economic and demographic variables were considered as follows:

. Educational variables - These were the traditional indicators of performance of the system (in this case only formal elementary and secondary education): enrollment by grade and age, rates of promotion, retention and dropout, teacher and personnel qualification, number of schools and classrooms.

. Demographic variables - population (age 7, 7 to 14 and total), rate of urbanization, rate of annual growth.

. Socio-economic - economic active population, percentage of population within the various income range, public revenues, ocupational dispersion.

The historical study analysed, by grade, the rates of promotion and dropout in the period 1971-1981 in the State, and within each of the six regions (period 1975-1982). Horizontally, all possible aparent cohorts were studied. It was our intention to assess if the State has overcome, in the past decade, the distortions and disparities shown in the 1970 Census. With the extension of compulsory education from four to eight years and with the implementation of a variety of government programs to improve educational performance some changes

were expected. Unfortunately the data did not suggest any significant change or improvement in the rates of promotion and dropout within the specific grades.

First grade has, consistently the lowest rates of promotion (ranging from 57% to 62% in the State) and the highest dropout rates (which to have increased from 1971 to 1980). The historical analysis shows that dropout has also been a serious problem in $5^{\underline{th}}$ grade (the beginning of the second cycle of elementary school) in all regions considered.

The cohort studies show the figure of a dramatic and steep pyramid though there are striking differences between the regions and a small but consistent improvement in the number of students who finish $8^{\underline{th}}$ grade. In the whole State for each 100 enrolled in grade one in 1975, 33 concluded the $4^{\underline{th}}$ grade in 1978 and only 15 concluded the $8^{\underline{th}}$ grade in 1982. In the six regions, and considering State public schools only, the picture is as follows:

Year	Grade	Coastal	Central Mountains	North	South	Sweet River	Metropolitan
1975	1^{st} (E)	100	100	100	100	100	100
1976	2 (E)	48	49	41	59	59	73
1978	4 (P)	20	31	16	33	31	50
1979	5 (E)	17	23	15	32	28	68
1978	8 (P)	6	8	6	15	12	32

E = enrollment
P = promotion

(From Gama & Machado, 1985)

Secondly we proceeded to analyze, in detail, the educational performance in the State in the year of 1980. The six regions were compared and, within each region, the urban and the rural areas as well as the four different types of school. Analysis of the data show, among other things taht:

. Of all children age 7 and 7 to 14, only 78.7 and 84.2 percent, respectively, were regularly enrolled. The Metropolitan Region had the best rates and the North the lowest. Overall the rural areas had much lower rates of schooling than the urban.

. In grade one dropout rates reached 28.9 percent in the State, ranging

from 22.2% in the Metropolitan area and 36.2% in the Northern Region. Though the rates were slightly lower in the grouping of grades 1 to 4 (22% total; range = 15.9 to 28.8) the regional configuration was exactly the same. In the grouping of grades 5 to 8 the dropout rates reached 23.6% in the State (range = 18.8%, Coastal Region; 31.9%, Northern Region).

. Rates of school failure (dropout plus retention) were very high. In grade one 66.8 percent of the children failed in 1980 (range: 50.9 to 83.0); in grades 1 to 4 combined 46.3% failed (range: 41.9 to 60.6%) and in grades 5 to 8 combined 41.1% failed (range: 34,1 to 45.0%).

. With the exception of promotion rates in grades 5 to 8 (where the rural area performed better) the urban area presented, consistenty the best rates.

. Rates of $8^{\underline{th}}$ grade promotion in the adequate age range were systematically low (53.6% in the State; range: 58.7 to 37.7%) showing a "swelling" of the system.

. Overall, the Metropolitan area presented the best educational performance and the Northern Region the worst.

Finally, rates of access (age 7 and 7 to 14), of promotion and dropout (grades 1, 1 to 4 and 5 to 8) and rate of graduation in the appropriate age as indicators of the educational performance of the system were correlated with rates of teacher qualification and the demographic and socio-economic variables. Correlations were calculated by county and by region. Results show significant associations between educational disparities and socio-economic disparities. In general, the poorer regions, those with a higher concentration of the population in the lower extremes of income, and with lower public revenues also had higher dropout, and lower promotion and teacher qualification rates in grades 1 to 4. There were very few significant correlations between educational indicators in grades 5 to 8 and the other variables considered.[1]

To this point, the study presented a picture of the global quantitative performance of the educational system. It made possible to compare the present with the past situation, the six regions, the rural with the urban area as well as the performance of the public with the private school system. Furthermore it contributed to make it explicit the disparities and inequalites, everything that has been achieved in the evolution of the educational system and everything that is left to be achieved. The data also point to the existence of serious

1. All of the above data were draw from Gama et al. 1984, 1985.

problems in the quality of schooling and the correlations show that educational disparities cannot be reduced only with corrections in the educational area — it must be associated to a broader process of reduction of socio-economic disparities.

As such the study provides many useful informations to educational administrators and planners that can be used in decision making directed towards the reduction of disparities. However, this methodological approach does not reach the school context and its daily routine and for this reason it does not offer information about the quality of education. These questions are better discussed in more specific and less global investigations as we developed in the second stage of our investigation.

The second set of studies is based on the assumption that, in terms of the quality of educational services, the relationship between socio-economic conditions and results of schooling is mediated by intra-school conditions which, therefore, need to be investigated.

Under this assumption the following projects have been deve developed:

. A review of the literature covering all research studies conducted in within the topic of elementary education in the State;

. Investigations focusing on the problem of dropout in grades one and nine;

. Teacher perceptions and assumptions regarding the educational problems in their school system;

. Curriculum evaluation of the elementary teacher training programs;

. Teacher expectations and attributions for students' academic success;

. Case studies on the schooling routine in rural and urban public schools;

. Analysis of teacher opinions on the organization and delivery of instruction;

Given the wide range of problems and disparities found, these are just a few the possible studies. It is the intention of the research group to continue this line of investigation through faculty and student research. At the same time all results are fedback to the State Department of Education. An informal and dynamic process of interaction and exchange of information has been established between the University and the central administration. Research results are presented and discussed in their meetings and in their training programs. It is our expectation that this way we can decrease the distance between researchers and educational administrators and effectively contribute to

decision making towards the improvement of education in the State and the reduction of educational disparities.

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